

***CLEARING A ROAD TO DRIVING FITNESS BY BETTER  
ASSESSING DRIVING WELLNESS***

***DEVELOPMENT OF CALIFORNIA'S PROSPECTIVE  
THREE-TIER DRIVING-CENTERED ASSESSMENT SYSTEM***

***SUMMARY REPORT***

***SEPTEMBER 2005***

<b>REPORT DOCUMENTATION PAGE</b>			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE August 2005		3. REPORT TYPE AND DATES COVERED
4. TITLE AND SUBTITLE Clearing A Road To Driving Fitness By Better Assessing Driving Wellness: California's Three-Tier Driving-Centered Assessment System - Summary Report			5. FUNDING NUMBERS	
6. AUTHOR(S) David F. Hennessy and Mary K. Janke				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) California Department of Motor Vehicles Research and Development Section P.O. Box 932382 Sacramento, CA 94232-3820			8. PERFORMING ORGANIZATION REPORT NUMBER  CAL-DMV-RSS-05-215	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of Traffic Safety 7000 Franklin Boulevard, Suite 400 Sacramento, CA 94223-1899			10. SPONSORING/MONITORING AGENCY REPORT NUMBER  TR0004	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words)  This report describes the final development and validation of an integrated three-tier system for assessing drivers' degrees of driving wellness (degree of freedom from driving-relevant functional limitations) and driving fitness (degree to which a driver compensates for any such limitations while actually driving). Both driving wellness and driving fitness are assessed in a driving-centered manner. Assessment tools recommended for use in each tier are described, as is the selection of two decision points (cutpoints) which separate drivers into three categories: pass ("driving-well"), "somewhat functionally limited", and "extremely functionally limited." Compared to elder renewal license applicants who were assessed as somewhat functionally limited, elder renewals assessed as extremely functionally limited were more likely to fail a structured road test, but less likely to have been crash involved in the last three years. Reasons for this apparent paradox, in which more functionally limited drivers have fewer crashes, are addressed in the report. The report describes in detail the flow of renewal license applicants through the three-tier assessment system and makes numerous recommendations, including that the three-tier assessment system be adopted on a pilot basis for further evaluation.				
14. SUBJECT TERMS driving wellness, driving fitness, licensing tests, licensing assessment system, functionally limited drivers, three-tier, driving-centered, driver-centered.			15. NUMBER OF PAGES 23	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT None	

## **PREFACE**

This project was made possible through the support of the California Office of Traffic Safety and the National Highway Traffic Safety Administration. Both this summary report and the full technical report (Report No. 216, with the same title and date) were prepared by the Research and Development Branch, Licensing Operations Division, of the Department of Motor Vehicles. The opinions, findings, conclusions, and recommendations expressed in this publication and in the full technical report are those of the authors and not necessarily those of the California Department of Motor Vehicles or the State of California.

## ACKNOWLEDGMENTS

The authors would like to acknowledge with appreciation the many individuals who contributed to this study. First and foremost we are grateful for the exceptional contributions that were made to the success of this study by all of the Motor Vehicle Field Representatives and Licensing/Registration Examiners who identified and tested the study participants in the four Department of Motor Vehicles Field Operations' study offices: Santa Monica, Costa Mesa, Van Nuys, and Pasadena. They are named in the table below. We are also grateful for the tremendous support of the study office managers named in that table and the general support of all the staff working in the study offices. Pilot testing was carried out in the Carmichael field office. Headquarters Field Operations managers, John Rooney (III) and Babette Williams (V), supported the study offices in carrying out various data collection activities.

### *Three-Tier Study Offices and Staff*

	<b>Office Managers Attached to Study</b>	<b>Study LREs</b>	<b>Study MVFRs</b>
<b>Phase I Study Offices June–December 2001</b>			
<b>Santa Monica</b>	Michael Dillon IV Elizabeth Hernandez III Pete Carranza I	Lola Craven Danny Mersiehazen	Loraine Gilliam Antonia Montes
<b>Costa Mesa</b>	Marilyn Busell V Lynn Sosa III Rosa Casas I	Sharon Langerman Dinah Heimos	Charise Slach Frances Ward
<b>Phase II Study Offices January–June 2002</b>			
<b>Van Nuys</b>	Robert Nelson IV Mark Dragan III Rosie Romero I Dolores Orrante I	Lee Carlson Jake Duran	Elsa Gutierrez Ana Martinez Odilia Moreno-Zunigo
<b>Pasadena</b>	Dixon Jones V Elizabeth Fenner III Mary Millsaps I	Aaron Lee Lashonda Thompson	Leila Giraldo Debbie Pulley

Hannah Lee (University of California Los Angeles graduate student) and Harrison Tanji (Van Nuys Driver Safety Office) served as local study coordinators for study Phases I and II, respectively. They were both exceedingly competent in the day-to-day running of the study.

Clifford J. Helander (retired), Chief of the Research and Development Branch and David J. DeYoung Acting Chief of the Research and Development Branch provided general direction. David DeYoung, Robert Hagge, Research Manager II, and most especially

Leonard Marowitz, acting Research Manager II, reviewed earlier drafts of the report and provided valuable comments for improving the study report. Mary Bobo, an undergraduate student assistant from California State University, Sacramento, contributed to the development of two checklists for law enforcement use in informing the Department of Motor Vehicles of its reasons for considering any particular driver hazardous enough to warrant a reexamination. Debbie McKenzie, Associate Governmental Program Analyst in the department's Research & Development Branch, formatted the report.

## TABLE OF CONTENTS

	<u>PAGE</u>
PREFACE .....	i
ACKNOWLEDGMENTS .....	ii
INTRODUCTION AND RATIONALE .....	1
Background .....	1
Purpose .....	1
Expected Outcomes .....	4
METHODS .....	5
Subjects .....	5
Choosing Cutpoints .....	5
Choosing Assessment Tools .....	7
Study Limitations .....	7
RESULTS AND DISCUSSION .....	8
Chosen Assessment Tools .....	8
Outcomes .....	10
Tier 3: Road Test Decision .....	12
RECOMMENDATIONS .....	13
Future Multi-Phase Pilot Study .....	15
APPENDICES .....	16
APPENDIX A - Processing of Renewals: Flow Charts and Text Description .....	16
APPENDIX B - Unobtrusive Structured Observations & Cognitive Screen .....	21
APPENDIX C - Law Enforcement Request for Re-Examination of Driver .....	22

## LIST OF FIGURES

### NUMBER

1	Projected outcomes for renewal applicants by age with implementation of the three-tier assessment system .....	3
2	Perceptual response time frequency distributions for the youngest and oldest participants .....	6
3	Percentage failing supplemental driving performance evaluation and percentage crashing at least once in the three years prior to study participation: Renewals age 70-96 .....	11

## INTRODUCTION AND RATIONALE

### Background

The three-tier assessment system, which first began with a cooperative agreement between the National Highway Traffic Safety Administration and the California Department of Motor Vehicles in 1993, was originally approached as a method to assess older drivers only, but it later became possible to apply the concept to all renewal and all road test referral drivers. The three-tier system has been developed by the department to assess drivers without regard for their age, yet address the driving-related medical problems and functional limitations that occur most often among older drivers, but which can occur in youth and middle age. Some drivers never experience these problems and limitations.

A variety of mental and physical abilities are associated with safe driving. When one or more of these abilities is diminished or lost, individuals have driving-related functional limitations. The number and degree of these limitations impact individuals' driving. However, the impact of these limitations on driving can be lessened or eliminated by successfully compensating for them. A prerequisite to successful compensating may be awareness of one's limitations. This creates a possible paradox in which those with more substantial driving-related functional limitations may be more aware of them than those with less substantial limitations and, therefore, may compensate more often and better—and thus crash less often.

In addition to removing the licenses of unsafe drivers of all ages, Department of Motor Vehicles' driver license renewal and referral assessment system should identify individuals with different degrees of limitations and help reduce or eliminate the factors preventing effective compensating, when possible.

### Purpose

This report summarizes the final development and validation of an integrated three-tier system for assessing drivers' degree of driving wellness and driving fitness. The first two tiers assess the driver's degree of driving wellness and the third tier assesses driving fitness.

A driver's degree of **driving wellness** is:

- A driving-relevant description or assessment made *independently* of the driving task or the driving environment.
- An evaluation of aspects of functional health that are relevant for driving, understanding of safe driving practices, and knowledge of the laws, and rules of the road.

- For example, assessing a driver's contrast sensitivity (an ability needed for seeing such things as the light car in the fog, the dark car in the shade, and the faded lane boundary markings) is an important part of assessing the driver's degree of driving wellness.

A driver's degree of **driving fitness**, on the other hand, is:

- An assessment of the driver, with whatever abilities and limitations he or she has, *in interaction with his or her* driving environment.
- An evaluation of any limitations the driver has relative to when, where, and how the driver *actually* drives.
  - An example is assessing a decrement in a driver's contrast sensitivity relative to the ways the driver *compensates* for this limitation in the course of driving. Perhaps (s)he drives only on brief errands in familiar surroundings, never drives at night, and never drives when it's foggy. In these limited situations driving may be safe, despite the fact that consideration of the driver in isolation suggests that (s)he does not see well enough to drive safely.

One of the California Department of Motor Vehicles' most important goals is the furtherance of traffic safety. Crashes or near-crashes on a departmental road test or in personal driving are most commonly caused by critical driving errors on the part of a driver. A **critical driving error** is an action or inaction which has a high probability of precipitating an adverse driving event, such as forcing other drivers to take evasive action to avoid a crash, actually colliding with them, or nearly colliding with them. For drivers with functional limitations, the risk for making a critical driving error is, in large part, a function of the ability to compensate for driving-relevant functional limitations.

Along with ensuring a high level of traffic safety, an objective of the three-tier assessment system is to keep people driving safely for as many years as possible, if that is their desire. It is designed to serve as a basis for a graded (conditional) licensing program that aids drivers in improving their driving-relevant functioning and in adequately compensating for their limitations. Those who are unaware of their limitations or neglect them—perhaps due to passive acceptance of functional problems as inescapably caused by aging—are greatly hindered from either improving their functioning or adequately compensating for their limitations. These and many other constraints are barriers to the safe mobility of all road-users and especially to the safe mobility of the growing older segment of the driving population.

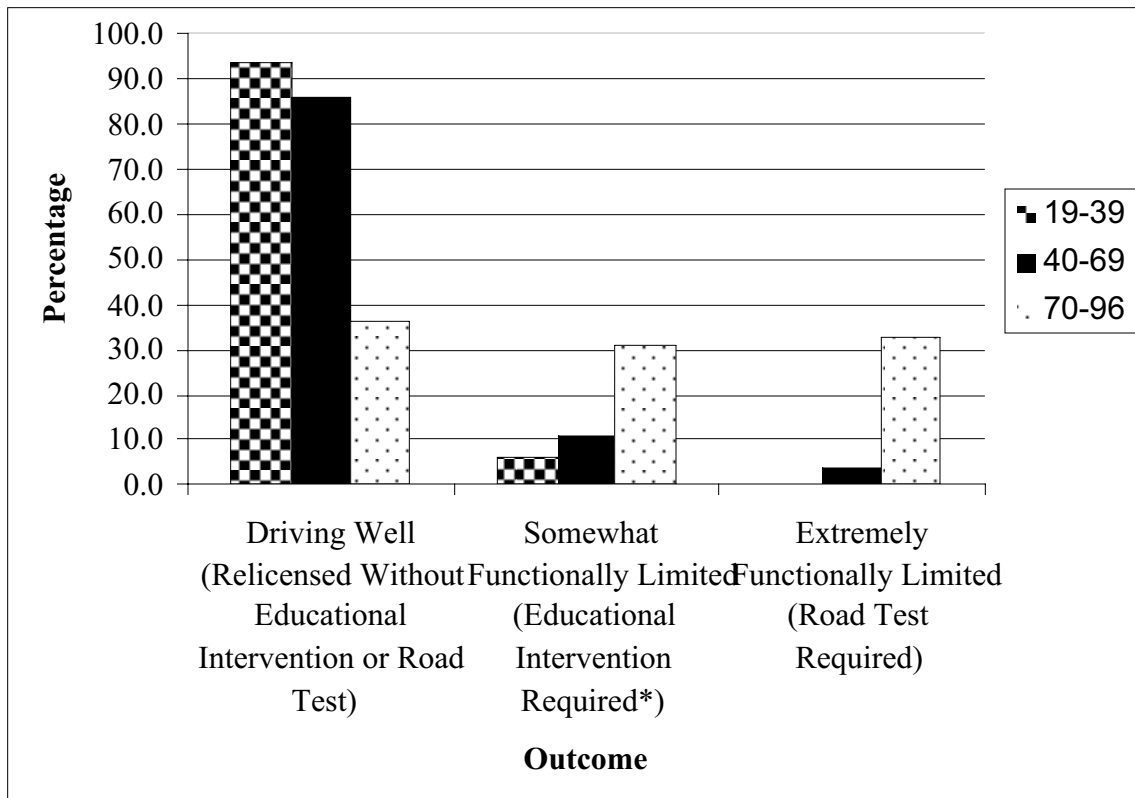
The three-tier assessment system consists of three stages or tiers of assessment tools. As mentioned above, the first two tiers assess driving wellness and the third tier is used to estimate driving fitness by assessing the driver's ability to compensate for driving-relevant functional



limitations that may have been identified on the first two tiers. A person who can achieve a passing score on all of the first-tier assessment tools will not be assessed on the next two tiers, with the exception of the second-tier knowledge test. Passing this test is required for driving.

The first two tiers consist of non-driving assessments that provide a basis for determining whether a road test is needed in order to make a licensing decision. This study examined different non-driving assessment tools and how successful they are in predicting road test performance. The more successful they are, the more valid a basis they can be for requiring a road test.

To preview how the recommended three-tier system might operate in practice, both study results and study recommendations (presented below) were used to create Figure 1.



\* An educational module would be required that would teach drivers about their limitations as shown by their performance on the recommended assessment tools and the effect of those limitations on their driving safety. Some somewhat functionally limited, as described later, would also have to take a road test.

*Figure 1.* Projected outcomes for renewal applicants by age with implementation of the three-tier assessment system.

The study results and recommendations indicate that the oldest drivers would have the most diverse outcomes, while the youngest and middle-aged drivers largely would pass tiers 1 and 2 and would be relicensed without needing an educational intervention or road test.

### **Expected Outcomes**

Most of the drivers assessed as extremely functionally limited were expected to have a high degree of real-world driving fitness (that is, their driving would tend to be safe under the conditions in which they choose to drive) together with a low degree of driving wellness. This is because, when functional limitations are great, drivers are probably most aware of them. They are most able to know the ways their limitations can affect their driving, the types of driving conditions that are difficult for them, and the ways to compensate. Unless their functional limitations have affected their judgment, as in cases of moderately advanced dementia, or are too severe to allow compensation, they can know the scope of their driving limitations and can compensate adequately. They may restrict themselves to familiar routes near home and avoid a wide variety of driving conditions and situations that pose excessive challenges to their abilities. Consequently they will also drive less, which will in turn reduce their exposure to crash risk. Thus, the proportion of drivers crashing among those assessed as extremely functionally limited is predicted to be markedly lower than drivers assessed as somewhat functionally limited.

On the other hand, the proportion of drivers crashing was predicted to be highest among those assessed as somewhat functionally limited, such as those suffering the onset of some functional limitation. Drivers in this group were expected to be most unaware of their changing health, how this could be expected to affect their driving, and what might be done about it—either in terms of improving functioning or, if sufficient improvement could not be achieved, compensating for remaining limitations.

These expected outcomes reflect a **driving-centered** approach to assessment. The three-tier assessment system is driving centered because it takes into consideration the driver in interaction with the driving environment. This is opposed to a **driver-centered** approach that evaluates drivers without regard for driving in interaction with the driving environment.

## METHODS

### Subjects

Three-tier study participants consisted of 343 renewal applicants, 324 road test referrals, and 58 “visual acuity referrals,” renewal applicants who had failed the Department of Motor Vehicles’ 20/40 acuity screen, visited a vision specialist, and still could not pass the department’s acuity screen upon retaking it. Renewal applicants consisted of people younger than 70 whose flawed driving records made them ineligible for renewal by mail and people aged 70 or more at the expiration of their current licenses, who are legally ineligible, by reason of their age, to renew by mail. Participants’ ages ranged from 19 to 96 years. These drivers were not volunteers; they were selected from among English-speaking customers unaccompanied by young children.

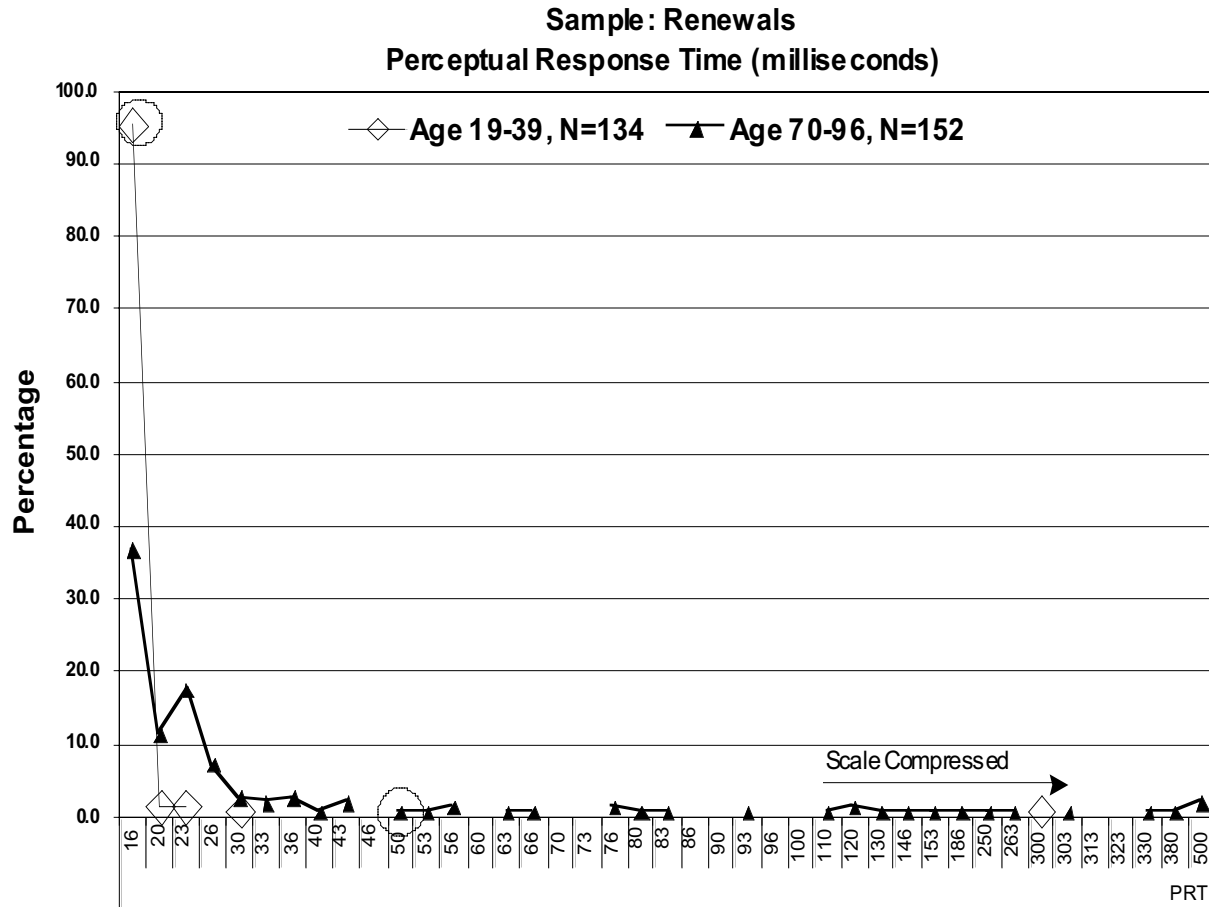
Participants were separated into the three age groups: 19-39 years ( $N = 196$ ), 40-69 years ( $N = 174$ ), and 70-96 years ( $N = 355$ ). This report draws most of its findings from the 152 renewals aged 70-96. Age disparities in the volume of customers occurred because every driver 70 years or above is required to renew his or her license at a field office, while younger people with relatively clean driving records are eligible for renewal by mail. Most analyses in this report focused on renewals, who do not ordinarily take road tests, as opposed to individuals referred to take a road test due to a demonstrated or reported problem that potentially, or observably, affects their driving.

### Choosing Cutpoints

Scores on assessment tools revealed that the performance of older drivers ranged from very poor to very good, unlike the generally good and much less variable test performance of the younger participants. Also, the performance of renewals did not show a uniform, progressive decline in scores with increasing chronological age. As can be seen for the perceptual response time<sup>1</sup> assessment tool in Figure 2, compared to the youngest age group, the distribution of scores for the oldest group extended to longer response times (observed in only one member of the youngest group). This indicates greater variability in functional ability among members of the oldest group, with individuals showing either varying degrees of worsening or no worsening.

---

<sup>1</sup> Perceptual response time measures how fast drivers can process visual information; in this case, identifying a silhouette as a truck or car presented for varying flash durations (500 milliseconds down to 16 milliseconds) on a computer screen. Accurately identifying the silhouette after shorter flash durations indicates faster processing.



*Figure 2.* Perceptual response time frequency distributions for the youngest and oldest participants. The circled values are the distributions' means. Adjacent points are connected by lines.

With advancing age, increasing numbers of drivers have decreased information processing speed, but a substantial proportion of older drivers still have a good perceptual response time. In fact, 37% of renewals aged 70-96 registered the shortest perceptual response time achievable under the conditions of the test, thereby performing as well as the typical 19-39 year-old. The oldest group consisted of people whose perceptual response time was not functionally limited, somewhat functionally limited, or extremely limited. Inspection of performance on other assessment tools gave similar results. These findings indicate that appreciation of older drivers' great variability of functioning must be an integral part of a driver's license renewal and referral assessment system.

In developing an assessment system, it is necessary not only to select good assessment tools but also to select defensible pass-fail cutpoints for them. In order to make a **driving-centered** assessment of driving-wellness (one that takes into consideration the driver in interaction with the driving environment), it was necessary to establish two cutpoints so that a moderate level of failure (called **somewhat functionally limited**) could be distinguished both from pass (called **driving-well**) and from an extreme level of failure (called **extremely functionally limited**).

Cutpoints for each assessment tool were chosen by examining the distribution of individuals' scores on them. For the cutpoint between the pass and somewhat functionally limited groups, the following target criteria were developed based on the relative driving wellness expected of each group:

- 90-95% of the 40-69 year old renewals should pass.
- 50% or more of the 70- to 96-year-old renewals should pass.
- 50% or fewer of the 70- to 96-year-old road test referrals should pass.

After selecting passing cutpoints to separate driving-well from somewhat functionally limited, the cutpoint to separate somewhat functionally limited from extremely functionally limited was chosen. This cutpoint was determined by estimating, again through inspection, the first score obtained by only a small number of individuals (beginning of right tail) in the distributions of assessment tool scores for 70- to 96-year-old renewals.

Both cutpoint criteria are admittedly subjective, but there were no good objective criteria to use as guidelines. The validity of the chosen cutpoints for categorizing drivers as driving-well, somewhat functionally limited, and extremely functionally limited was later confirmed by road test outcomes, in conjunction with crash involvement in the prior three years.

### **Choosing Assessment Tools**

An integrated assessment-tool system was developed in which the results of the individual assessment tools were combined. First, the screening characteristics of possible combinations of first-tier tools were compared. Next, the screening characteristics of selected combinations of first-tier tools and the second-tier measure of perceptual response time were considered. Similar outcomes were found across all plausible assessment tool combinations.

### **Study Limitations**

This study has some limitations that reduce the certainty of its conclusions and the ability to generalize its findings to other field offices. Included in these limitations is the fact that the four

field offices in the study come from a limited geographical area. The field office staff who participated in the study consisted of a select group of high performers who are not representative of all field office staff. The road test routes are unique to the field offices that participated in the study, and the procedures followed by the examiners may have contained subjective elements. Random sampling from the entire population of renewal drivers was not possible; therefore analyses were based on a modest sized convenience sample that may not represent the distribution of ages, genders, ethnicities, attitudes toward the driver license process, and other factors that might affect performance on assessment tools and road tests.

It is not possible to determine the extent to which study findings were affected by these and other factors. Future pilot projects with rigorous design and analysis, as described in the Recommendations Section, will examine these factors.

## RESULTS AND DISCUSSION

Given the similar screening characteristics of the various combinations of assessment tools evaluated, other criteria were used to make a final selection of assessment tools. In addition to limiting the number of assessment tools and the assessment tool administration times to the minimum degree possible for valid and reliable assessment, each tool had to:

- Work reliably in the field office environment.
- Be obviously relevant to driving.
- Have short staff training and administration times.
- Be difficult for candidates to learn and gain skill at.

### Chosen Assessment Tools

#### Tier 1:

- The usual **Snellen test** of high-contrast *visual acuity*.
- Another chart-based test, new to California licensing, of *contrast sensitivity* (the **Pelli-Robson test**).
- **Unobtrusive structured observations** that would be made by field office counter staff to identify any *obvious physical limitations* (shown in Appendix B).
- A **brief cognitive screen** administered by counter staff in which applicants would be asked to *recall their Social Security number*.

Thus, in tier 1 a driver would be quickly screened for driving-relevant limitations in visual, mental, and physical ability.

**Tier 2:**

- The standard Department of Motor Vehicles' **knowledge test**.
- A computer-based assessment of **perceptual response time**.

**Tier 3:**

- A Department of Motor Vehicles' **road test**.
  - Either:
    - The **Supplemental Driving Performance Evaluation** (only road test used in study) or
    - The **Area Driving Performance Evaluation** (not used in study—a recommendation for future).
      - By road-testing extremely functionally limited drivers, when and where they normally drive, driving-centered assessments would be made indicating whether such drivers can consistently and adequately compensate for limitations during their customary driving.
  - Drivers assessed as extremely functionally limited would be able to choose to take the Supplemental Driving Performance Evaluation or the Area Driving Performance Evaluation.
  - In most cases drivers who fail the Supplemental Driving Performance Evaluation would be given the opportunity to take the Area Driving Performance Evaluation, so these individuals would take both tests.

The flow of renewal candidates through the three-tier assessment system can be complicated, especially if the driver fails one or more of the assessment tests. A complete picture of the processing of renewal applicants through the three-tier system is portrayed in both verbal and graphic form in Appendix A. However, a basic and simplified version of the processing of renewal drivers through the system is as follows. A driver first takes the assessment tests in tier 1. If (s)he passes, (s)he only needs to take and pass the written knowledge test to become relicensed. If a renewal driver somewhat-fails tier 1 and passes or somewhat fails tier 2, then the department delivers an educational intervention to the driver on ways to compensate for functional limitations. Finally, if a renewal applicant's limitations are so pronounced that (s)he extreme-fails tiers 1 or 2 or somewhat-fails tiers 1 and 2, then (s)he must take a road test; based on the results of the assessment and road tests, a decision is made on whether to relicense the driver.

## Outcomes

Based on performance on tiers 1 and 2, study participants were categorized as driving-well, somewhat functionally limited, or extremely functionally limited. The validity of the three categories was evaluated using a technique called “outcome pattern matching” which determines if the pattern of expected outcomes matches the obtained outcome pattern. This study predicted a pattern of (1) crash involvement and (2) performance on a structured road test that matched the pattern that was found (shown in Figure 3).

The opposite outcomes predicted and found were:

1. Drivers assessed as extremely functionally limited had a **higher** failure rate than drivers assessed as somewhat functionally limited on the Supplemental Driving Performance Evaluation (66.0% vs. 41.3%,  $p = .017$ ).
  - a. This finding is attributable to a generally lower level of driver wellness among extremely limited drivers that was evident during the road test. On a structured road test, where they must follow an examiner’s instructions, extremely functionally limited drivers may be largely constrained from compensating for their limitations.
2. Drivers assessed as extremely functionally limited had a **lower** percentage than drivers assessed as somewhat functionally limited of crashing one or more times during the three years prior to study (14.0% vs. 29.8%,  $p = .059$ ).
  - a. This finding may be attributable to a greater awareness of functional limitations among extremely limited drivers and, consequently, more effective compensation. Extremely limited drivers may be more aware of their limitations because of their pronounced nature.
  - b. The model states that, because somewhat functionally limited drivers, in general, have less evident functional limitations, they may be less likely to be aware of their limitations and may be less likely to compensate for them.



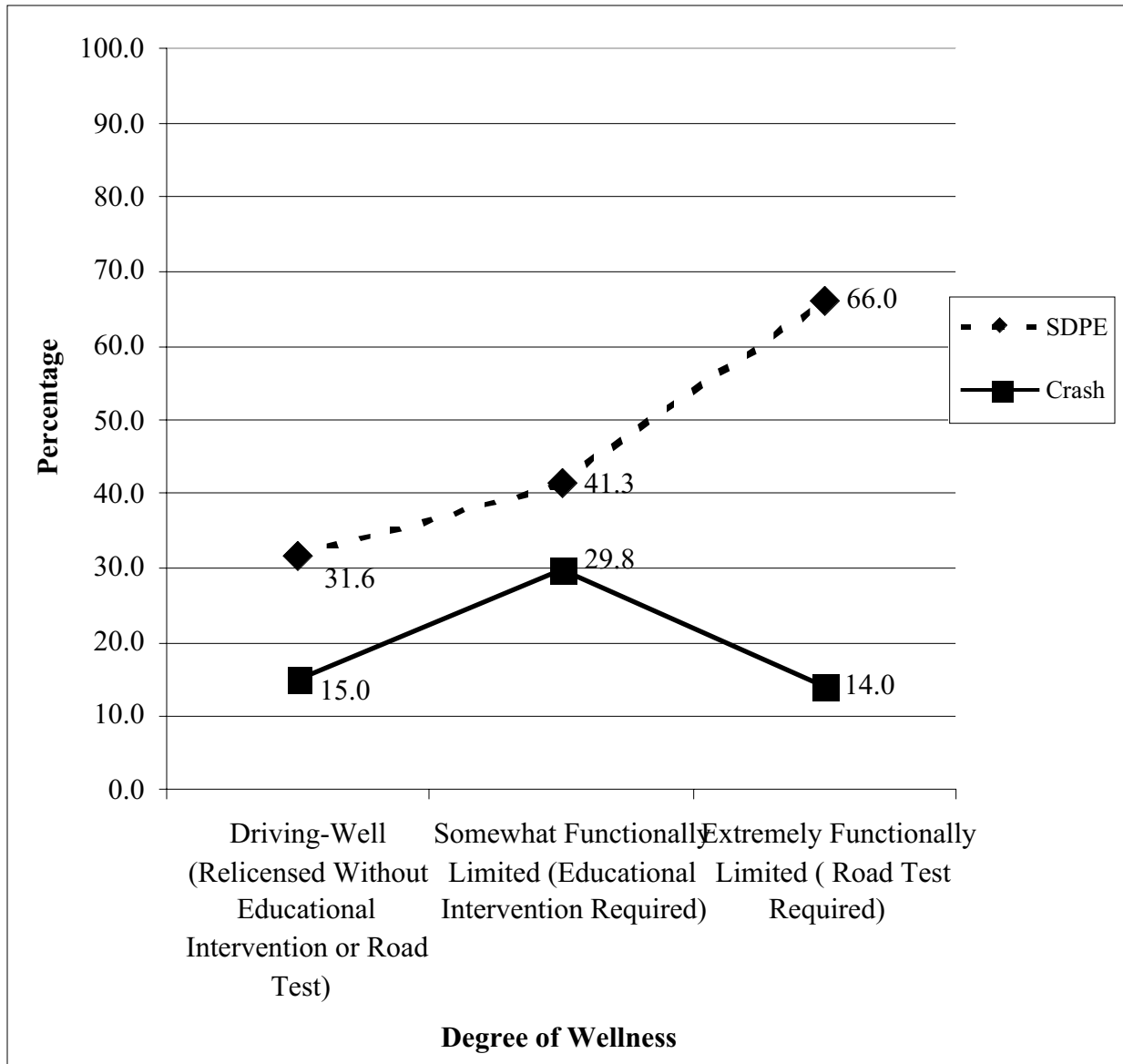


Figure 3. Percentage failing Supplemental Driving Performance Evaluation and percentage crashing at least once in the three years prior to study participation: Renewals age 70-96.

A survey of renewals age 70-96 determined the percentages of somewhat functionally limited and extremely functionally limited drivers that reported often or always avoiding various maneuvers, conditions, and situations. These included: freeways, sunrise/sunset glare, left-hand turns, rain or fog, heavy traffic, night driving, driving alone, and unfamiliar routes. Survey findings indicated similar levels of avoidance by somewhat and extremely functionally limited groups for all maneuvers, conditions, and situations.

The survey also included a question on how often the respondents drove. The results showed that, on average, extremely functionally limited drivers reportedly drove slightly fewer days each week than somewhat functionally limited drivers.

Together, these surveys do not support compensation for driving-related functional limitations as the reason that extremely functionally limited drivers have a lower percentage of crash involvement than do somewhat functionally limited drivers. The findings do, however, support the contention that the difference may be related to lower driving exposure among extremely functionally limited drivers.

Despite survey findings, more successful behavioral compensation remains an attractive and logical explanation for the lower crash involvement of the more functionally limited 70-96 year old renewal applicants. In fact, lower driving exposure (less driving) may be such a behavioral compensation in its ultimate form. Future pilot studies will test hypotheses about the ways in which extremely functionally limited drivers compensate for their limitations.

One last finding of note shown in Figure 3 is that crash involvement among renewals age 70-96 is similar for the driving-well group and the extremely functionally limited group. This indicates that the extremely functionally limited group is exercising control over their own driving to an extent that makes them no more a crash risk than drivers that were assessed to have no functional limitations. This supports the continued licensure of extremely functionally limited drivers (provided they can pass the tier 3 drive test).

### **Tier 3: Road Test Decision**

After tier 1/tier 2 assessment determines a driver to be either somewhat functionally limited or extremely functionally limited, the decision must be made as to whether a road test should be given and, if so, which road test. The categorizing of drivers depends on the scores they receive on the non-driving assessment tools.

For those drivers completing the third tier<sup>2</sup>, a licensing decision would be based on the information gathered on all three tiers. Under the three-tier assessment system an evaluation of individuals' driving-related functional limitations (identified by the assessment) and factors that constrain adequate compensation would occur at this point. In addition to imposing license restrictions, something the Department of Motor Vehicles already does, the driver would be

---

<sup>2</sup> Applicants unable to meet minimum levels of physical or mental functioning, including not being able to pass the knowledge test, would not reach tier 3. (See Appendix A for details.)

made aware of any functional limitations, how they affect driving, and how to compensate for them. The methods for determining factors which constrain adequate compensation and the techniques for overcoming the constraints have not been developed, nor have the practical logistics of staffing, training, facilities, and budgeting needed to carry this out. This presents a considerable future challenge.

## **RECOMMENDATIONS**

This study yielded a number of recommendations for statewide implementation of the three-tier driving-centered assessment system. The recommended processing of renewals who are ineligible to renew by mail because they are 70 years of age or older, because their driving record has problems, or both is presented in detail in Appendix A.

Data were gathered for road test referrals, but this group is not considered at length in this report and will be the focus of a future report. For now, study findings indicate that road test referrals should be administered all of the assessment tools on tiers 1 and 2 as well as the Supplemental Driving Performance Evaluation or Area Driving Performance Evaluation.

Other recommendations for renewals and referrals are grouped into (1) those directly supported by this study, (2) those procedural and policy changes recommended for three-tier to be effective, and (3) those complementary recommendations that make general good sense:

### **Recommendations directly supported by the three-tier study:**

- The three-tier assessment system, as described in the text and Appendix A, should be adopted on a pilot basis for further evaluation.
- Do not issue a temporary license to a DL 62 referral (visual acuity failure) who does not pass the knowledge test.
- Require road test referrals to pass the knowledge test before being allowed to take the road test.

### **Procedural and policy changes recommended for three-tier to be effective:**

- Law enforcement officers should continue using checklists based on data from the three-tier study and closely modeled on three-tier's structured observations to refer a driver for a priority or regular re-examination. (Shown in Appendix C.)
- Drivers who (1) score poorly enough on the Pelli-Robson contrast sensitivity test to indicate extreme functional limitation and (2) are referred to a vision specialist who does not

recommend immediate revocation or further referral to Driver Safety should be assessed on the tier 2 perceptual response time test.

- Require education and training for somewhat functionally limited drivers.
- Recommend a specified educational brochure (*Driving Safely While Aging Gracefully*) for distribution to individuals over 60 years of age who are eligible for California's renewal-by-mail program.
- Extremely functionally limited persons should have the option of choosing the Area Driving Performance Evaluation over the Supplemental Driving Performance Evaluation.
- The Area Driving Performance Evaluation and the Supplemental Driving Performance Evaluation should be evaluated and modified as necessary.
- A task force should be established to develop ways in which traffic safety and driver competency can be improved by giving more attention to training Department of Motor Vehicles' staff in departmental procedures. Desirable areas of enhanced staff training are (1) test administration, (2) use of choreographed drives in training Licensing-Registration Examiners in how to administer departmental road tests, and (3) use of ongoing quality control procedures for all assessment systems adopted by the department.

**Complementary recommendations that make general good sense:**

- Adopt recommendations made by the Medical Advisory Board Vision Panel in 2000-2001 for a revised form DL 62, a revised Vision Conditions and Actions Chart, and acuity testing only of each eye separately, rather than of both eyes together.
- Rescind procedural memos DL 2004-10 and DL 2004-13. These memos now:
  - Allow customers who have failed the knowledge test to have their missed questions restated by field office employees to facilitate their passing the test. (This written test failure policy can make the written test a non-examination—there is no pass/fail cut score and the unguided field office technician is solely responsible for determining whether a customer “passes” or “fails” the written test), and
  - Make it no longer mandatory for noncommercial or motorcycle applicants who fail the knowledge test three times to take a road test. (Since three successive failures of the knowledge test may indicate a cognitive problem in the case of a renewal customer who presumably has taken and passed the test before, a road test should be mandatory for such customers).
- Add to written departmental policy that functionally limited drivers who fail the freeway portion of the Supplemental Driving Performance Evaluation should have a restriction against freeway driving.
- A limit should be placed on the number of times the knowledge test can be taken during a period of time (perhaps six times each quarter of the year), and a minimum waiting period

should be required before retaking it (perhaps one week). Specific recommendations have to be developed, whose purpose is to encourage studying the Driver Handbook.

### **Future Multi-Phase Pilot Study**

The current study developed the procedures required for a three-tier driving assessment system. Assessment tools were chosen and validated. Field Office processes were refined. Outcomes were evaluated based on modest samples and models were solidified. In the future, related pilot studies with larger samples, rigorous research design, and statistical analysis will be performed to determine if the three-tier driving assessment system that has been developed can be used to achieve the following:

- Age-independent driver's license renewal assessment based on actual driving conditions and the ability of drivers to adjust to them.
- A driver's license renewal process that educates drivers to compensate, when possible and where necessary, for driving-related functional limitations in order to increase safe driving years—while removing licenses from those who cannot drive safely.
- The use of area road tests to develop and specify times, areas, and conditions under which drivers assessed as extremely functionally limited would be safe to drive and, with the worsening of functional limitations, to progressively diminish approved driving times, places, and conditions until the driver and the Department of Motor Vehicles would together determine that driving is no longer practicable.
- A decrease in crashes among drivers age 70 and over.
- An increase in safe driving duration among drivers age 70 and over.
- Cost-effective Department of Motor Vehicles' field office procedures in carrying out the three-tier driver's license renewal and referral assessments.

#### **The following pilot studies will be performed:**

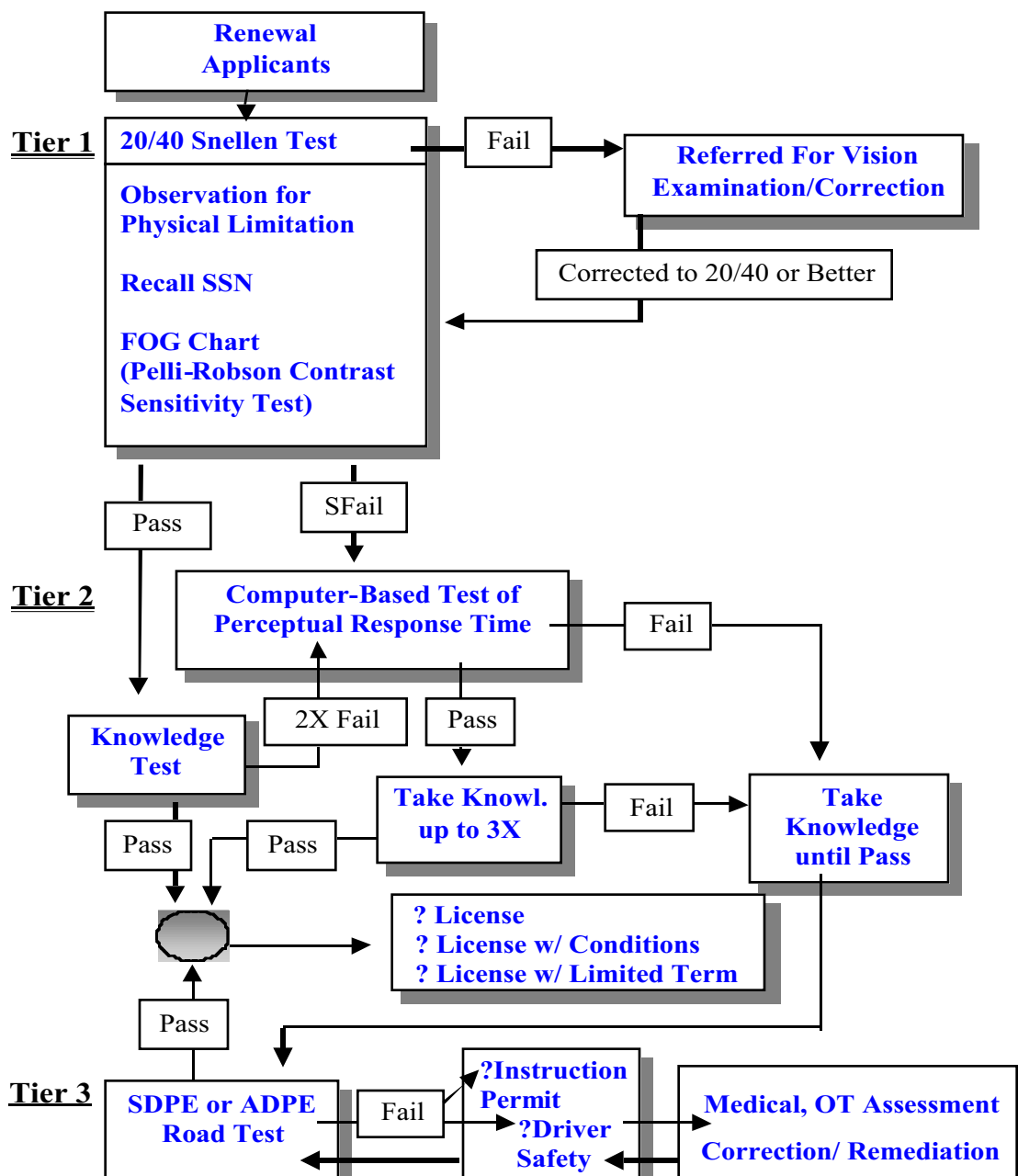
1. Determine current field office processes and outcomes (for example, road test outcomes by age) to establish a baseline against which to measure three-tier processes and outcomes.
2. Evaluate three-tier **processes** in a limited number of Department of Motor Vehicles field offices.
3. Evaluate three-tier **outcomes** in a limited number of Department of Motor Vehicles field offices.

Consideration of the statewide implementation of the three-tier assessment system or a variation of it will be based on the outcomes of these three pilot studies.

## APPENDIX A

## Processing of Renewals: Flow Charts and Text Description

The following chart is an overview of a recommended three-tier driving-centered assessment system for renewals who (1) **pass or somewhat-fail tier 1** (the best- and middle-performing three-tier groups, respectively) and (2) Snellen test fails whose visual acuity is corrected to 20/40 or better after referral to a vision specialist. A verbal description of the processing steps follows this chart.



1. **Pass Tier 1:** Renewal applicants who pass all four tier 1 assessment tools go directly to take the knowledge test in tier 2.
  - a. If the knowledge test is then passed, licensure can occur. (Go to item 6 below.)
  - b. If the knowledge test (tier 2) is then failed twice, the perceptual response time test must be taken.
    - i. If the perceptual response time test is passed, the knowledge test must be taken again, with applicants given up to three chances to pass on one application.
      1. If the knowledge test is passed after three or fewer attempts, licensure can occur. (Go to item 6 below.)
    - ii. If the perceptual response time test is failed, see item 3b below.
2. **Fail Snellen Test on Tier 1:** Renewal applicants who fail the Snellen test on tier 1 are instructed to go to a vision specialist of choice for examination, possible correction, and completion of the DL 62 form. Upon return to the field office they must take the Snellen test again before taking the other tests on tier 1. (This chart assumes that the applicant now passes the Snellen.)
  - a. If all the other tests on tier 1 are then passed, the knowledge test is taken. (Go to step 1a above.)
3. **Somewhat-Fail Tier 1:** Renewal applicants who somewhat fail (SFail) tier 1 must take the perceptual response time test on tier 2.
  - a. If the perceptual response time test is passed, applicants take the knowledge test. (Go to step 1bi above.) It is also recommended that these renewals receive education on recognizing and compensating for driving-related functional limitations.
  - b. If the perceptual response time test is failed, or if the perceptual response time test is passed but applicants cannot pass the knowledge test on three attempts, they must retake the knowledge test on new application(s) until it is passed.
    - i. Once the knowledge test has finally been passed, the applicant must take either the department's supplemental driving performance evaluation or its area driving performance evaluation.
    - ii. If the knowledge test is not passed, no road test will be given and no license will be issued.
4. **Pass Supplemental Driving Performance Evaluation or Area Driving Performance Evaluation road test:**
  - a. Licensure can occur. (Go to item 6 below.)

**5. Fail Supplemental Driving Performance Evaluation or Area Driving Performance Evaluation road test:**

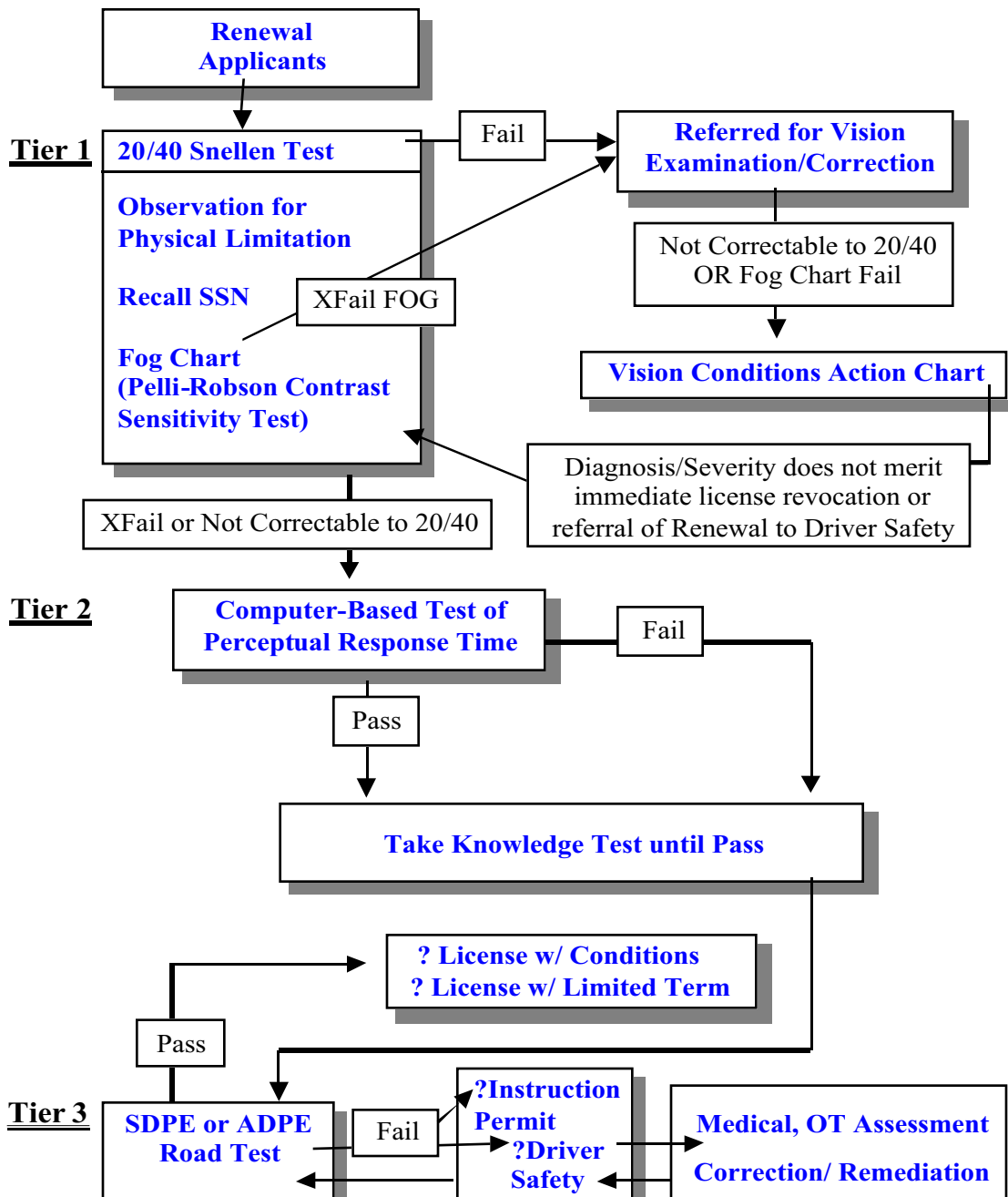
- a. A decision must be made whether to refer the applicant to Driver Safety (done when there is a likely physical or mental medical reason for failure) or to issue an instruction permit for the applicant to obtain driving instruction, done when failure appears more likely due to bad or inadequate driving habits. Whatever the reason for road test failure, a Supplemental Driving Performance Evaluation or an Area Driving Performance Evaluation must eventually be passed in order for licensure to follow.

**6. Licensure decision:** When renewal applicants qualify to be licensed, a decision must be made on the license type: (1) full licensure, (2) licensure with conditions (e.g., must use corrective lenses while driving), or (3) continuance of a previous limited-term licensure (typically limited to one or two years).

- a. Limited-term licensure is typically used if the department is aware that the applicant has a medical condition likely to be progressive.
- b. Occupational therapy (OT) assessment may be required.



The following chart is an overview of a recommended three-tier driving-centered assessment system for renewals who (1) **extreme-fail (XFail) tier 1** (the worst performing three-tier group), and (2) Snellen fails whose visual acuity, after referral, is not correctable to 20/40 or better. A verbal description of the processing steps follows this chart.



1. **Limited Vision (cannot pass Snellen or Pelli-Robson test [fog chart] even after visiting a vision specialist).** The Vision Conditions and Actions Chart (VCAC) in the DL Manual is checked and:
  - a. If the diagnosis or severity of the applicant's condition does not merit immediate license revocation or referral to Driver Safety then the applicant returns to tier 1 testing, unless (s)he has completed all tier 1 tests.
  - b. If the diagnosis or severity of the applicant's condition does merit it, the revocation or referral is made.
  
2. **Extreme-Fail tier 1 or have an uncorrectable vision problem, as referred to in Item #1.** Must take the perceptual response time test. Whether applicants pass or fail the perceptual response time test, they take the knowledge test until it is passed and then take a road test. This road test may be either the Supplemental Driving Performance Evaluation or the Area Driving Performance Evaluation.
  - a. If the road test is passed, a licensing decision is made. Licensure with conditions is recommended whether the perceptual response time was passed or failed. In either case, limited term licensure is seriously considered, especially for those who failed the perceptual response time test. In particular, if the driver has only been able to pass the Area Driving Performance Evaluation, that driver's license and future driving will be restricted to the area tested.
  - b. If the road test is failed, a decision must be made whether to refer the applicant to Driver Safety (generally done when there is a likely physical or mental medical reason for failure) or to issue an instruction permit that enables the applicant to obtain driving instruction. The latter is done when failure appears more likely to be caused by bad or inadequate driving habits. Applicants referred to Driver Safety will be re-referred by them for medical or occupational therapist assessment and possible remediation.

## APPENDIX B

### Unobtrusive Structured Observations & Cognitive Screen

**Instructions to field office technician:** Discreetly observe the behavior of customers whom you serve in order to identify any of the failure criteria listed in the following table. Indicate your observations on the Observations Checklist, shown below. You have authority, given in Vehicle Code 12814, to make and act on structured observations.





Ability	Observe Customer	Failure Criteria
1. Adequate lower body (below waist) strength, range of motion, mobility and coordination to use foot-operated vehicle controls	Walking to DMV service counter.  You will need to be standing to make this observation.	1. Customer is unable to walk to DMV service counter if not aided physically by another person or significant support device (i.e., walker, cane, wheel chair, breathing apparatus, or artificial limb), <u>and</u> license is not appropriately restricted or condition not noted on driver record, e.g., by a DL11. 2. Full or partial loss of use of a leg or foot <u>and</u> license is not appropriately restricted, or condition not noted on driver record. 3. Obvious/Excessive shaking <sup>3</sup> <u>and</u> license is not appropriately restricted, or condition not noted on driver record. 4. Obvious/Excessive stiffness or rigidity, <u>and</u> license is not appropriately restricted, or condition not noted on driver record.
2. Adequate memory	Recalling social security number. (While you are still holding the customer's paper work.)	5. Customer failed to correctly recall complete Social Security Number from memory.
3. Adequate upper body (above waist) strength, range of motion, mobility, and coordination to use hand-operated vehicle controls.	Turning head and using arms and hands, especially while signing name to Form DL44 or DL 1RN.	6. Full or partial loss of use of an arm or hand, <u>and</u> license not appropriately restricted or condition not noted on driver record, e.g., DL11. 7. Obvious/Excessive shaking <sup>1</sup> <u>and</u> license not appropriately restricted, or condition not noted on driver record. 8. Obvious/Excessive stiffness or rigidity, <u>and</u> license not appropriately restricted, or condition not noted on driver record.
4. Other possibly driving-relevant functional limitations.	Showing, or reporting, other driving-relevant functional limitations.	9. For example, speech that is markedly slow or slurred (a possible sign of mental limitation) or customer reports back problem/injury which may hinder movement.

<sup>3</sup> Severe and apparently uncontrollable

<sup>4</sup> While you are still holding the customer's paper work, instruct the customer to write their SSN on the back of their Form DL44 or DL 1RN.

## APPENDIX C

## Law Enforcement Request for Re-Examination Of Driver

 A Public Service Agency	<b>Destroy all previous versions of this form.</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 2px;">FOR DMV USE ONLY</td> </tr> <tr> <td style="padding: 2px;">X - (    )</td> </tr> </table>	FOR DMV USE ONLY	X - (    )																																	
FOR DMV USE ONLY																																					
X - (    )																																					
<p><input type="checkbox"/> <b>NOTICE OF PRIORITY RE-EXAMINATION OF DRIVER (Driver Incapacity)</b>          The driver listed below committed a violation of Section(s) 21000 through 23336 of the California Vehicle Code (CVC) and should be re-examined pursuant to Section 21061 CVC. At the time of the violation the driver exhibited evidence of incapacity which reasonably led me to believe this person is incapable of operating a motor vehicle in a manner so as not to present a clear or potential danger of risk of injury to this person or others if this person is permitted to resume operation of a motor vehicle. As required by law, on the date below, I issued a copy of this Notice of Priority Re-examination/Notice of Suspension for Non-Compliance to the driver listed below.</p> <p>The driver does not have to be cited for one of the above CVC sections. Please indicate evidence of the incapacity in the Summary area below. If the driver was involved in a traffic accident, attach a copy of the report. You must give a copy of this form to the driver.</p> <p>If this form is being issued as a Notice of Priority Re-examination/Notice of Suspension for Non-Compliance, immediately fax the document (if fax available) to the Driver Safety Office nearest the driver's home (see reverse), then mail the original Notice to the same office.</p> <p style="text-align: center;"><b>NOTICE OF SUSPENSION FOR NON-COMPLIANCE</b></p> <p><b>INSTRUCTIONS TO DRIVER</b>          If the above box is checked, you must contact the Department of Motor Vehicles (DMV) for a re-examination under Sections 12818 and 12819 CVC. If you do not call or appear within five (5) working days, your privilege to drive in this state will be suspended until you satisfactorily complete a re-examination. SEE IMPORTANT PRIORITY RE-EXAMINATION INFORMATION ON THE REVERSE SIDE OF THIS FORM.</p> <p><input type="checkbox"/> <b>REQUEST FOR REGULAR RE-EXAMINATION OF DRIVER (Officer's Instructions on reverse.)</b>          The driver listed below should be re-examined by DMV, but does not require a Priority Re-examination.</p>																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">DATE</td> <td style="width: 20%;">TIME</td> <td style="width: 20%;">DRIVER LICENSE NO.</td> <td style="width: 20%;">STATE</td> <td style="width: 20%;">BIRTHDATE</td> </tr> <tr> <td colspan="5">NAME (FIRST, MIDDLE, LAST)</td> </tr> <tr> <td colspan="5">MAILING ADDRESS</td> </tr> <tr> <td>CITY</td> <td>STATE</td> <td>ZIP CODE</td> <td colspan="2">DRIVER'S DAYTIME PHONE NO.</td> </tr> <tr> <td colspan="5">LOCATION OF ACCIDENT</td> </tr> <tr> <td colspan="5">ANY NOTICE TO APPEAR NO. IF CITATION ISSUED, ATTACH COPY</td> </tr> <tr> <td colspan="2">ACCIDENT/ARREST NO. (ATTACH COPY IF APPLICABLE)</td> <td>CITY</td> <td colspan="2">COUNTY</td> </tr> </table>			DATE	TIME	DRIVER LICENSE NO.	STATE	BIRTHDATE	NAME (FIRST, MIDDLE, LAST)					MAILING ADDRESS					CITY	STATE	ZIP CODE	DRIVER'S DAYTIME PHONE NO.		LOCATION OF ACCIDENT					ANY NOTICE TO APPEAR NO. IF CITATION ISSUED, ATTACH COPY					ACCIDENT/ARREST NO. (ATTACH COPY IF APPLICABLE)		CITY	COUNTY	
DATE	TIME	DRIVER LICENSE NO.	STATE	BIRTHDATE																																	
NAME (FIRST, MIDDLE, LAST)																																					
MAILING ADDRESS																																					
CITY	STATE	ZIP CODE	DRIVER'S DAYTIME PHONE NO.																																		
LOCATION OF ACCIDENT																																					
ANY NOTICE TO APPEAR NO. IF CITATION ISSUED, ATTACH COPY																																					
ACCIDENT/ARREST NO. (ATTACH COPY IF APPLICABLE)		CITY	COUNTY																																		
<p><b>OBSERVED DRIVING BEHAVIOR—Check appropriate boxes for driving problems you observed: (Use space below if needed for additional comments.)</b></p> <table style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <input type="checkbox"/> Responding incorrectly to Emergency Signal/Lights  <input type="checkbox"/> Drifting or weaving in and out of lanes  <input type="checkbox"/> Caused, or nearly caused, collision  <input type="checkbox"/> Not reacting to other cars, pedestrians, etc.  <input type="checkbox"/> Driving on wrong side of road  <input type="checkbox"/> Driving on sidewalk  <input type="checkbox"/> Driving in wrong lane  <input type="checkbox"/> Driving too slow, impeding traffic  <input type="checkbox"/> Failed to stop at red light/stop sign  <input type="checkbox"/> Unsafe/inappropriate lane change  <input type="checkbox"/> Inappropriately stopped         </td> <td style="vertical-align: top; width: 50%;"> <input type="checkbox"/> Failed to yield right-of-way  <input type="checkbox"/> Lost control of vehicle  <input type="checkbox"/> Struck stationary object  <input type="checkbox"/> Failed to go on green light  <input type="checkbox"/> Driving without lights during darkness  <input type="checkbox"/> Made turn from wrong lane  <input type="checkbox"/> Fell asleep while driving  <input type="checkbox"/> Violent or aggressive driving  <input type="checkbox"/> Not adequately controlling vehicle  <input type="checkbox"/> Other Observations: _____         </td> </tr> </table>			<input type="checkbox"/> Responding incorrectly to Emergency Signal/Lights <input type="checkbox"/> Drifting or weaving in and out of lanes <input type="checkbox"/> Caused, or nearly caused, collision <input type="checkbox"/> Not reacting to other cars, pedestrians, etc. <input type="checkbox"/> Driving on wrong side of road <input type="checkbox"/> Driving on sidewalk <input type="checkbox"/> Driving in wrong lane <input type="checkbox"/> Driving too slow, impeding traffic <input type="checkbox"/> Failed to stop at red light/stop sign <input type="checkbox"/> Unsafe/inappropriate lane change <input type="checkbox"/> Inappropriately stopped	<input type="checkbox"/> Failed to yield right-of-way <input type="checkbox"/> Lost control of vehicle <input type="checkbox"/> Struck stationary object <input type="checkbox"/> Failed to go on green light <input type="checkbox"/> Driving without lights during darkness <input type="checkbox"/> Made turn from wrong lane <input type="checkbox"/> Fell asleep while driving <input type="checkbox"/> Violent or aggressive driving <input type="checkbox"/> Not adequately controlling vehicle <input type="checkbox"/> Other Observations: _____																																	
<input type="checkbox"/> Responding incorrectly to Emergency Signal/Lights <input type="checkbox"/> Drifting or weaving in and out of lanes <input type="checkbox"/> Caused, or nearly caused, collision <input type="checkbox"/> Not reacting to other cars, pedestrians, etc. <input type="checkbox"/> Driving on wrong side of road <input type="checkbox"/> Driving on sidewalk <input type="checkbox"/> Driving in wrong lane <input type="checkbox"/> Driving too slow, impeding traffic <input type="checkbox"/> Failed to stop at red light/stop sign <input type="checkbox"/> Unsafe/inappropriate lane change <input type="checkbox"/> Inappropriately stopped	<input type="checkbox"/> Failed to yield right-of-way <input type="checkbox"/> Lost control of vehicle <input type="checkbox"/> Struck stationary object <input type="checkbox"/> Failed to go on green light <input type="checkbox"/> Driving without lights during darkness <input type="checkbox"/> Made turn from wrong lane <input type="checkbox"/> Fell asleep while driving <input type="checkbox"/> Violent or aggressive driving <input type="checkbox"/> Not adequately controlling vehicle <input type="checkbox"/> Other Observations: _____																																				
<p><b>DRIVER CONDITION (Observations after Stop/Collision)—Check all appropriate boxes below. Please use the space below to provide specific details, if known, and the driver's medical (physical or mental) condition such as name of disease or illness, any medications taken, etc.</b></p> <table style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <input type="checkbox"/> Confused, disoriented, incoherent, or unaware of actions  <input type="checkbox"/> Reported/Observed Medical Condition  <input type="checkbox"/> Little or no recollection of incident  <input type="checkbox"/> Medicated  <input type="checkbox"/> Vision Condition/Vision Impairment  <input type="checkbox"/> Mental/Emotional Condition  <input type="checkbox"/> Driver reported he/she did not see cars, pedestrians, etc.  <input type="checkbox"/> Difficulty Walking  <input type="checkbox"/> Weakness or Coordination Problems         </td> <td style="vertical-align: top; width: 50%;"> <input type="checkbox"/> Alcohol/Drug Use (Describe below)  <input type="checkbox"/> Confused by traffic  <input type="checkbox"/> Lost or confused while driving near home  <input type="checkbox"/> Blackout/Seizure/Fainting  <input type="checkbox"/> Driver appears to need help with hygiene and/or dressing appropriately  <input type="checkbox"/> Other Observations: _____         </td> </tr> </table>			<input type="checkbox"/> Confused, disoriented, incoherent, or unaware of actions <input type="checkbox"/> Reported/Observed Medical Condition <input type="checkbox"/> Little or no recollection of incident <input type="checkbox"/> Medicated <input type="checkbox"/> Vision Condition/Vision Impairment <input type="checkbox"/> Mental/Emotional Condition <input type="checkbox"/> Driver reported he/she did not see cars, pedestrians, etc. <input type="checkbox"/> Difficulty Walking <input type="checkbox"/> Weakness or Coordination Problems	<input type="checkbox"/> Alcohol/Drug Use (Describe below) <input type="checkbox"/> Confused by traffic <input type="checkbox"/> Lost or confused while driving near home <input type="checkbox"/> Blackout/Seizure/Fainting <input type="checkbox"/> Driver appears to need help with hygiene and/or dressing appropriately <input type="checkbox"/> Other Observations: _____																																	
<input type="checkbox"/> Confused, disoriented, incoherent, or unaware of actions <input type="checkbox"/> Reported/Observed Medical Condition <input type="checkbox"/> Little or no recollection of incident <input type="checkbox"/> Medicated <input type="checkbox"/> Vision Condition/Vision Impairment <input type="checkbox"/> Mental/Emotional Condition <input type="checkbox"/> Driver reported he/she did not see cars, pedestrians, etc. <input type="checkbox"/> Difficulty Walking <input type="checkbox"/> Weakness or Coordination Problems	<input type="checkbox"/> Alcohol/Drug Use (Describe below) <input type="checkbox"/> Confused by traffic <input type="checkbox"/> Lost or confused while driving near home <input type="checkbox"/> Blackout/Seizure/Fainting <input type="checkbox"/> Driver appears to need help with hygiene and/or dressing appropriately <input type="checkbox"/> Other Observations: _____																																				
<p><b>SUMMARY:</b> You may use the space below to further describe actions of the driver which led you to believe a re-examination is needed - describe any impairment, serious physical injury or illness, mental impairment or disorientation. Describe any traffic law violations whether or not a citation was issued.</p>   																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">AGENCY</td> <td style="width: 40%;">TELEPHONE NO. (    )</td> </tr> <tr> <td>STREET ADDRESS</td> <td>CITY</td> </tr> <tr> <td colspan="2">ZIP CODE</td> </tr> <tr> <td>OFFICER NAME (PLEASE PRINT)</td> <td>BADGE OR I.D. NUMBER</td> </tr> </table>			AGENCY	TELEPHONE NO. (    )	STREET ADDRESS	CITY	ZIP CODE		OFFICER NAME (PLEASE PRINT)	BADGE OR I.D. NUMBER																											
AGENCY	TELEPHONE NO. (    )																																				
STREET ADDRESS	CITY																																				
ZIP CODE																																					
OFFICER NAME (PLEASE PRINT)	BADGE OR I.D. NUMBER																																				
<p><i>I certify under penalty of perjury under the laws of the State of California that the information I have provided is true and correct.</i></p>																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">OFFICER'S SIGNATURE</td> <td style="width: 15%;">DATE</td> <td style="width: 15%;">DATE PAID</td> <td style="width: 30%;">DO YOU WISH TO BE NOTIFIED OF RESULT?</td> </tr> <tr> <td></td> <td></td> <td></td> <td><input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> </table>			OFFICER'S SIGNATURE	DATE	DATE PAID	DO YOU WISH TO BE NOTIFIED OF RESULT?				<input type="checkbox"/> Yes <input type="checkbox"/> No																											
OFFICER'S SIGNATURE	DATE	DATE PAID	DO YOU WISH TO BE NOTIFIED OF RESULT?																																		
			<input type="checkbox"/> Yes <input type="checkbox"/> No																																		
<p style="text-align: center;">White: DMV    Canary: Law Enforcement    Pink: Driver (Priority Re-Exam Only)</p>																																					
<p style="font-size: small;">DR-437 (REV. 9/2004)</p>																																					

## APPENDIX C (continued)

## INSTRUCTIONS TO THE OFFICER

Use this form to refer drivers to the Department of Motor Vehicles (DMV) for re-examination. All drivers referred by a law enforcement officer will be scheduled for a re-examination or, if appropriate, an immediate suspension or revocation will be imposed. Drivers who meet the criteria of 21051 CVC should be referred for an immediate, priority re-examination. Drivers who do not meet this criteria, but you believe should still be seen by DMV, should be referred for a regular re-examination.

## Priority Re-examination

If the driver is being referred for a priority re-examination in accordance with Sections 12818 and 21081 of the California Vehicle Code (CVC), you must:

- Check the box for Priority Re-examination.
- Describe or list any violation of Section(s) 21000 - 23338 CVC. An actual citation or arrest is not required. (If the driver was involved in an accident or arrested, the information should be listed, or a copy of the accident report attached.)
- Describe actions of the driver, including a description of the serious physical injury or illness, mental impairment or disorientation that led you to reasonably believe the person is incapable of operating a motor vehicle without danger of risk of injury.
- Check one of the boxes below for the location of the Driver Safety Office nearest the driver's home.
- Sign the front of this form where indicated.
- Give a copy of this form to the driver.

If possible, fax the Notice of Priority Re-examination/Notice of Suspension for Non-Compliance to the Driver Safety Office nearest the driver's home (see list below), then mail the original copy of the Notice to the same office.

## Regular Re-examination

Requests for a "regular" re-examination of a driver should be mailed (not faxed) to the Driver Safety Office nearest the driver's home.

## INSTRUCTIONS TO THE DRIVER FOR PRIORITY RE-EXAMINATIONS

This Notice of Priority Re-examination/Notice of Suspension for Non-Compliance requires you to contact the DMV (in person or by telephone) within five (5) working days or your driving privilege will be suspended on the sixth day. Contact the DMV Driver Safety Office checked below for an appointment to talk to a hearing officer as soon as possible to make arrangements for reexamination before the suspension goes into effect. The hearing officer will schedule you for all required tests. At the time of your appointment for the reexamination, bring this form with you. You may be required to take a written, vision and driving test. You should be prepared to take any of these tests. **Please have a licensed driver accompany you.** Before a driving test is conducted, you must show evidence of financial responsibility (proof of auto insurance) for the vehicle you will drive during the test.

## IMMEDIATE SUSPENSION OR REVOCATION POSSIBLE

In the event the Department of Motor Vehicles determines that your safety, or the safety of other persons upon the highways, requires suspension or revocation of your driving privilege, the Department of Motor Vehicles may, upon receipt and investigation of this Notice of Priority Re-examination/Notice of Suspension for Non-Compliance, suspend or revoke your driving privilege immediately in accordance with Section 13953 of the California Vehicle Code.

## DEPARTMENT OF MOTOR VEHICLES—DRIVER SAFETY DISTRICT OFFICES

LOCATION	TELEPHONE	FAX	ADDRESS
<input type="checkbox"/> City of Commerce	(323) 724-4000	(323) 724-9262	5801 E. Stauson Ave., 2nd Fl., Ste. 250, 90040
<input type="checkbox"/> El Segundo	(310) 615-3500	(310) 615-3581/82/83	320 N. Sepulveda Blvd., Ste. 2075, 90245
<input type="checkbox"/> Fresno	(559) 445-6399	(559) 445-6379	2510 S. East Avenue, Ste. 310, 93706
<input type="checkbox"/> Irvine	(949) 440-4416	(949) 440-4424	16735 Van Karman Ave., Ste. 110, 92606
<input type="checkbox"/> TDD:	(949) 440-4455		
<input type="checkbox"/> Oakland	(510) 563-8900	(510) 563-8950/8951	303 Hegenberger Rd., 4th Fl., Ste. 400, 94621
<input type="checkbox"/> Oxnard	(805) 488-0863	(805) 488-3219	4050 S. Saviers Rd., 93033
<input type="checkbox"/> Sacramento	(916) 227-2970	(916) 227-0174/2901	4700 Broadway, 2nd Fl., 95820
<input type="checkbox"/> San Bernardino	(909) 383-7413	(909) 383-7439	1845 Business Center Dr., Ste. 212, 92408
<input type="checkbox"/> San Diego	(619) 627-3901	(619) 627-3925	9174 Sky Park Court, Ste. 200, 92123
<input type="checkbox"/> San Francisco	(415) 557-1170	(415) 557-7375	1377 Fell Street, 2nd Fl., 94117
<input type="checkbox"/> San Jose	(408) 229-7100	(408) 229-7128	90 Great Oaks Blvd., Ste. 104, 95119
<input type="checkbox"/> Van Nuys	(818) 376-4217	(818) 376-4215	6150 Van Nuys Blvd., Ste. 205, 91401

DB 427 (REV. 9/2004)